



I THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit: 2826

Examiner: Williams, Alexander O.

IN RE THE APPLICATION OF:

INVENTORS:

NEUHAUS et al.

APPLICATION NO.:

09/957,401

FILING DATE:

19 September 2001

TITLE:

METHOD FOR ASSEMBLING COMPONENTS AND

ANTENNAE IN RADIO FREQUENCY IDENTIFICATION

DEVICES

RESPONSE TO OFFICE ACTION

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Signature:

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Sir:

This letter is in response to an Office action dated 1 July 2002. Claims 26-29, 34-48, 66-82, and 84-85 are elected for prosecution.

REMARKS

Novelty - 35 U.S.C. § 102

Commissioner for Patents

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Claims 26-29, 33-48, 66-77, 80-82, 84 and 86 were rejected in the Office action as anticipated by U.S. Patent No. 6,35,420 to Chung. Applicants presume the rejections of claims 33 and 86 are typographical errors as these claims were previously restricted from consideration. Applicants therefore presume the rejection is actually directed to claim 85

rather than claim 86 and base the response herein on that presumption. If this presumption is incorrect, the Office is asked to appropriately advise.

The Office action applies Chung specifically to independent claims 26 and 66. The Office action suggests that Chung discloses "at least one electrically conductive hard particle 50 attached to at least one do [sic] the first and second electrically conductive contacts" In fact, electrically conductive hard particles are nowhere described or suggested in Chung. Element 50 is described as a "conductor[] 50 filling holes 22, 24 [that] may be formed of a variety of materials by building up metal, such as by plating copper beryllium copper, brass and other copper alloys, or nickel or aluminum or other suitable metal, to fill holes 22, 24, or may be made by depositing electrically conductive adhesive to fill holes 22, 24, such as by screen printing, stenciling, and the like." (Col. 3, 1. 64 – col. 4, 1. 3; emphasis added.)

The electrically conductive hard particles claimed in the present invention are not "built-up metal," nor are the hard particles an "electrically conductive adhesive." Electrically conductive hard particles are defined in the written description of the present application as either metal particles or nonconductive hard particle cores covered by a conductive metal layer. (See specification p. 17, ll. 20-34.) Each electrically conductive hard particle is singular and is attached to an electric contact surface. The electrically conductive hard particles of the present invention are not built-up metal "bumps 52, 54" as disclosed in Chung. (See col. 3, ll. 27-42.)

Likewise, the electrically conductive hard particles of the present invention are not electrically conductive adhesive. Electrically conductive adhesive is generally an adhesive filled with metal powder or flakes allowing current to flow throughout the adhesive. In contrast, the singular electrically conductive hard particles each conduct current from a first electrical contact to a second electrical contact. Electrical interaction between electrically conductive hard particles would only occur if two particles happened to touch each other. The electrically conductive hard particles do not make the non-conductive adhesive used in the present invention conductive. In fact, the nonconductive adhesive actually helps electrically insulate the electrically conductive hard particles from each other.

Chung further does not disclose a non-conductive adhesive that provides permanent physical attachment between electrical components as suggested in the Office action. Chung discloses a non-conductive *insulating* adhesive 58 for the purpose of *covering* and *protecting* the antenna 30B and the electronic device 40 from moisture and other detrimental environments. In contrast the present invention claims the use of a non-conductive adhesive to physically hold the electric contact surfaces and the electrical components together.

For at least these reasons Applicants contend that Chung does not anticipate claims 26 and 66 of the present application, and therefore does not anticipate the remaining claims 27-29, 34-48, 67-77 80-82, and 84-85. Retraction of the rejections to these claims is respectfully requested.

Applicants also note that none of dependent claims 27-29, 34-48, 67-77 80-82, and 84-85 were specifically addressed in the Office action. Although Chung is cited generally as anticipating each of these claims, the Office action provides no indication of how or where Chung teaches these limitations. Applicants have reviewed Chung and cannot determine how Chung anticipates claims 25-29, 34-48, 67-77 80-82, and 84-85 and therefore request revocation of the rejection of these claims.

Obviousness - 35 U.S.C. § 103

Claims 78 and 79 were rejected in the Office action as unpatentable as obvious in view of Chung pursuant to 35 U.S.C. § 103 and were further characterized as "product by process claims." Claims 78 and 79 are both dependent claims to independent claim 66. As discussed above, independent claim 66 is not anticipated by Chung. Therefore, the rejection of claims 77 and 78 is moot and should be withdrawn. Further, the Office action, while basing the rejection on 103(a), provides no rationale why the claims 78 and 79 are obvious in light of Chung, even if, for the sake of argument, these are product by process claims. The Office action provides no reasoning why the structure recited in claims 78 and 79 is obvious. No teachings in Chung are indicated and no other references are cited in combination with Chung. For at least these reasons Applicants contend that claims 78 and 79 are patentable and respectfully request that the rejections to these claims be withdrawn.

Reinstatement of Species Claims - 37 C.F.R. §§ 1.141 & 1.143

In Applicants' response to the second restriction requirement dated 11 April 2002, the presently considered claims were provisionally elected with traverse. Applicants reassert that claims 26-29, 39-45, 67-71, and 75-82 might each be generic to all the species identified in the Office action. As previously set forth, Figures 2-8B are a generic representation of the invention that encompasses multiple embodiments also disclosed. Applicants' traverse with respect to the election of claims presently under consideration was acknowledged in the Office action dated 1 July 2002, but the Office action did not make the restriction requirement final.

Pursuant to 37 C.F.R. §§ 1.141 & 1.143, Applicants respectfully request that the restriction of claims 30-33 and 83 be withdrawn and that these claims be allowed to issue as

dependent to generic independent claims 26 and 66. These five claims are reasonable in number and are dependent to allowable generic claims.

Conclusion

In light of the remarks above, Applicants believe the claims under consideration in this application are allowable and request issuance in due course. Applicants further request withdrawal of the restriction of claims 30-33 and 83 and issuance of these claims as well.

Respectfully submitted this 30th day of September 2002.

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Docketing



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Herbert J. NEUHAUS, et al.

Serial No. 09/957,401

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Sir:

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September 30, 2002

Kristi Murray/Dorsey & Whitney LL

Customer No. 20686